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# THE FIGHT FOR GREEN ECONOMIES: THE ROLE OF SUSTAINABLE DEVELOPMENT IN NATIONS FACING TURMOIL

Lucy K. Infeld<sup>†</sup>

*Abstract:* The international focus on sustainable development, and lessening the damage to our environment, can be seen in numerous international conventions and the laws of many individual countries. While most countries around the world have attempted some action to lessen the impact of global warming, not all of these efforts have been successful. Notably, Syria created numerous legal reforms aimed at sustainable development, but has had difficulty implementing these reforms. Contrarily, Morocco, a country with similar climate and obstacles in implementing sustainable development has had great success. A question remains as to whether the lack of implementation of sustainable development practices contributed to Syria's political upheaval or the other way around.

## I. INTRODUCTION

The nation of Syria has made international headlines in recent years as hundreds of thousands have fled the country.<sup>1</sup> Refugees are trying to escape the fate of over two hundred and fifty thousand Syrians who have died from malnutrition or in the crossfire between political groups.<sup>2</sup> With religious sects, jihadist groups, and the nation's government all fighting for control at the expense of the Syrian people, questions have arisen as to how this disastrous civil war could have been avoided. Despite the clear political conflicts, the roots of this conflict also trace back to the Syrian climate, its susceptibility to the effects of global warming, and the failure of the Syrian government to implement any conservation efforts to mitigate the problems the nation will inevitably face.<sup>3</sup> There are numerous factors and issues that intersected to create the eventual conflict in Syria; however, this comment is limited to analyzing the lack of environmental and sustainable development policies as a contributing factor to the Syrian Civil War.

Syria, a country with semi-arid climate, is covered partially in desert with five main regions of farmland.<sup>4</sup> Syria has long experienced periods of

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<sup>1</sup> Aryn Baker, *How Climate Change is Behind the Surge of Migrants to Europe*, TIME (Sept. 7, 2015), <http://time.com/4024210/climate-change-migrants/>.

<sup>2</sup> *Syrian Refugees: A Snapshot of the Crisis*, EUROPEAN UNION, <http://syrianrefugees.eu/>.

<sup>3</sup> Aron Lund, *Drought, Corruption, and War: Syria's Agricultural Crisis*, CARNEGIE MIDDLE EAST CENTER (Apr. 18, 2014), <http://carnegie-mec.org/diwan/55376>.

<sup>4</sup> *Country Profile: Syria*, NEW AGRICULTURALIST (Sept. 2002), <http://www.new-ag.info/en/country/profile.php?a=864>.

drought, interspersed with wet seasons helping to keep the country's farmland functioning. However, as global warming has affected the region, the Syrian government has failed to successfully implement any systems to stop the overuse of the nation's water and land resources.<sup>5</sup> The recent droughts in Syria have exacerbated the lack of conservation methods and have caused much of the country's farmland to become barren.<sup>6</sup> The decrease in farmland has led to malnutrition and starvation in some of the nation's poorest regions.<sup>7</sup> As such, the country's farmers have travelled into Syria's major cities looking for work or government assistance. The increased traffic into these major areas, which were already densely populated, has led to increased tension as the cities' poor experience greater competition for low paying jobs.<sup>8</sup>

The Syrian government has been unable to provide effective aid, or to quell the increasing extremist groups in the nation who have used this tension as a recruiting point.<sup>9</sup> The droughts and resulting overcrowding of Syria's cities have resulted in an increase in poverty, joblessness, and political tension.<sup>10</sup> This tension is one of the factors leading to uprisings, as well as hundreds of thousands of Syrians fleeing to other nations in search of a less tumultuous and more successful life.<sup>11</sup> Syria's lack of environmental conservation and failure to implement many of its sustainable development goals, in combination with the country's political problems, has contributed to the nation's political unrest. This unrest within Syria likely played a role in the eventual uprising of the Syrian Civil War that has rocked the region for the past several years.

The cycles of drought in Syria have remained largely consistent for the last fifty years. However, a series of overly ambitious development projects have drained the country of land and water resources. The

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<sup>5</sup> Asaad Hanna, *Syria's withering agricultural sector*, AL MONITOR (Apr. 11, 2016), <http://www.al-monitor.com/pulse/originals/2016/04/syria-agriculture-siege-situation-war-losses.html>.

<sup>6</sup> Mark Fischetti, *Climate Change Hastened Syria's Civil War: Human-induced drying in many societies can push tensions over a threshold that provokes violent conflict*, SCIENTIFIC AMERICAN (Mar. 2, 2015), <https://www.scientificamerican.com/article/climate-change-hastened-the-syrian-war/>.

<sup>7</sup> Colin P. Kelley et. al., *Climate change in the fertile crescent and implications of the recent Syrian drought*, PROC. OF THE NAT'L ACAD. OF SCI. (2015), <http://www.pnas.org/content/112/11/3241.full.pdf>.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> Henry Fountain, *Researchers Link Syrian Conflict to a Drought Made Worse by Climate Change*, N.Y. TIMES (Mar. 2, 2015), <http://www.nytimes.com/2015/03/03/science/earth/study-links-syria-conflict-to-drought-caused-by-climate-change.html>.

<sup>11</sup> *Id.*

government's failure to manage these resources necessitates revisiting the sustainable development goals of the country and the international agreements that outline them in order to properly implement them in Syria.<sup>12</sup> Syria has attended UN summits over the past two decades with stated enthusiasm for sustainable development practices.<sup>13</sup> In its 2012 Report on Sustainable Development, Syria's Ministry of State for Environmental Affairs described "huge step[s] in the path towards sustainable development" in initial planning steps toward air quality improvement, energy-efficiency, and environmentally sustainable economic growth.<sup>14</sup> However, in recent years, Syria's commitment to sustainable development and environmental conservation has largely lapsed.<sup>15</sup> While Syria claims a focus on implementing sustainable development practices and exercising environmental conservation, it has failed to create any programs for substantial change.<sup>16</sup> By analyzing the sustainable development goals Syria has signed in recent years, and looking to the lack of progress on any of these goals, one can study how Syria has failed to prevent the devastating side effects of globe warming it now faces.<sup>17</sup>

The Syrian government believes that terrorism and political unrest are forcing it to abandon any efforts towards sustainable development.<sup>18</sup> It cites the problems with radical terrorist groups and the increase of protests by the poor rural populations as reasons that it cannot create programs to conserve natural resources.<sup>19</sup> In recent years, the Islamic State and other extremist groups have gained steam in Syria and other Arab Spring nations.<sup>20</sup> The political unrest in these nations has given extremist groups the ability to recruit from impoverished and frustrated populations. The Syrian government has stated that its current focus is on regaining control from terrorist groups, and that conservation must be put on hold until these groups

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<sup>12</sup> Karl Mathieson, *Did climate change help cause the Syria war?*, The Guardian (Sept. 8, 2015), <https://www.theguardian.com/environment/2015/sep/08/aylan-kurdi-was-not-a-climate-refugee>.

<sup>13</sup> Dr. Kaoukab Daya, *National report of the Syrian Arab Republic*, MINISTRY OF STATE FOR ENVTL. AFF. (April 2012), <https://sustainabledevelopment.un.org/content/documents/982syria.pdf>.

<sup>14</sup> *Id.* at 3.

<sup>15</sup> Craig Welch, *Climate Change Helped Spark Syrian War, Study Says*, NAT'L GEOGRAPHIC (Mar. 2, 2015), <http://news.nationalgeographic.com/news/2015/03/150302-syria-war-climate-change-drought/>.

<sup>16</sup> Kelley et. al., *supra* note 7.

<sup>17</sup> *Id.*

<sup>18</sup> Nizar Abboud, *Statement at the UN Sustainable Development Summit* (Sept. 26, 2015), <https://syria360.wordpress.com/2015/09/26/syrias-statement-at-the-un-sustainable-development-summit/>.

<sup>19</sup> *Id.*

<sup>20</sup> Cameron Glenn, *Timeline: Rise and Spread of Islamic State*, WILSON CENTER (Jul. 5, 2016), <https://www.wilsoncenter.org/article/timeline-rise-and-spread-the-islamic-state>.

have been suppressed and the government regains control.<sup>21</sup> However, many link the political unrest in Syria to a lack of environmental conservation.<sup>22</sup>

Syria has long failed to properly manage its water and land resources.<sup>23</sup> The nation has a history of foregoing conservation efforts where overuse of the land results in economic growth.<sup>24</sup> Often, this proposed economic growth allows increased access to oil in some of Syria's most impoverished regions.<sup>25</sup> When oil drilling begins, the poor are forced off their land to make way for development.<sup>26</sup> Without the political unrest and poverty causing a flood of poorer populations into the major cities of Syria, extremists and terrorist groups may not have found the same success in recruiting Syrian people to their radical causes.<sup>27</sup> If Syria had begun to implement sustainable development practices long ago, this issue may not have had such disastrous consequences.

Part II of this paper will first look to the history of droughts in Syria and the devastation of the nation's most recent major drought. Then, it will analyze how these droughts contributed to political unrest and uprising in Syria. Part III will look to the sustainable development and conservation goals Syria has pledged to implement. It will then analyze where Syria has failed to follow through on these goals and efforts, with a particular focus on United Nations agreements and conventions Syria has signed. Part IV will then look to a nation that has successfully implemented sustainable development goals and pushed towards a green economy, the nation of Morocco. Morocco has had similar difficulties in combatting global warming and political unrest, but has worked to make sustainable development an integral part of the national mission.<sup>28</sup> Finally, in Part V,

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<sup>21</sup> *Jaafari to UN: Terrorism is Main Hurdle to Development*, SYRIAN OBSERVER (Sept. 28, 2015), <http://syrianobserver.com/EN/News/29868>.

<sup>22</sup> Middle East Centre for Sustainable Development, <http://www.mecsd.com/news-and-media.html> (last visited Jan. 14, 2017) [hereinafter MECSD]; see Fountain, *supra* note 10; see also Welch, *supra* note 15.

<sup>23</sup> Francesco Femia & Caitlin Werrell, *Syria: Climate Change, Drought and Social Unrest*, CENTER FOR CLIMATE & SECURITY (Feb. 29, 2012), <https://climateandsecurity.org/2012/02/29/syria-climate-change-drought-and-social-unrest/>.

<sup>24</sup> MECSD, *supra* note 22.

<sup>25</sup> Francesca De Châtel, *The Role of Drought and Climate Change in the Syrian Uprising: Untangling the Triggers of the Revolution*, 50.4 MIDDLE E. STUD. 521, 522 (2014), <http://www.tandfonline.com/doi/pdf/10.1080/00263206.2013.850076>.

<sup>26</sup> *Id.*

<sup>27</sup> MECSD, *supra* note 22.

<sup>28</sup> Charlotte Bozonnet, *Political stability in Morocco cannot silence the murmurs of discontent*, THE GUARDIAN (Mar. 9, 2015), <https://www.theguardian.com/world/2015/mar/09/morocco-reform-protest-arab-spring>.

this paper will make recommendations to Syria and other nations to properly focus their efforts on sustainable development practices that will help prevent political upheaval and devastation. This paper will contribute to the literature in this area by comparing how practical implementation of international goals can support political stability.

By comparing Syria's failure to implement sustainable development goals with countries of a similar climate, we can see where Syria's problems arise. Morocco and other nations have long implemented sustainable development goals and practices based on United Nations agreements and discussions at various multi-national conventions.<sup>29</sup> Morocco has dedicated itself to creating a sustainable green economy system.<sup>30</sup> The United Nations defines green economies as those that improve human well-being and social justice, while significantly reducing environmental risks and depletion of natural resources.<sup>31</sup> The implementation of sustainable development practices has provided Morocco with a safety net for increasingly warm and dry years to ensure that its farmlands do not become barren, and its economy does not experience the devastating effects that global warming can have on nations with arid and semi-arid climates.<sup>32</sup>

In looking to where Syria has chosen not to follow sustainable development goals, and where Morocco has, I will discuss how working towards these goals and creating actual standards within Syria may help to combat problems of poverty, political unrest, and economic distress.<sup>33</sup> Without any effort towards environmental conservation and sustainable development, Syria will likely experience even greater problems in the future and may not be able to sustain anything but a small fraction of its current population.<sup>34</sup>

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<sup>29</sup> Mireia Tarradell, *Analysis of National Strategies for Sustainable Development* 1 (Int'l Inst. for Sustainable Develop., Working Paper 2004), [https://www.iisd.org/pdf/2004/measure\\_sdsip\\_morocco.pdf](https://www.iisd.org/pdf/2004/measure_sdsip_morocco.pdf).

<sup>30</sup> *Id.*

<sup>31</sup> *Green Economy: Developing Countries Success Stories*, UNITED NATIONS ENVIRONMENTAL PROGRAMME 5, [http://www.greengrowthknowledge.org/sites/default/files/downloads/resource/GE\\_developing\\_countries\\_success\\_stories\\_UNEP.pdf](http://www.greengrowthknowledge.org/sites/default/files/downloads/resource/GE_developing_countries_success_stories_UNEP.pdf). [hereinafter UNEP Success Stories].

<sup>32</sup> *Green Economy Advisory Services: Morocco*, UNITED NATIONS ENVIRONMENT PROGRAMME [UNEP] (2012), <http://staging.unep.org/greeneconomy/Portals/88/documents/advisoryservices/countries/Morocco%20final.pdf>.

<sup>33</sup> *The Environmental Performance Review a powerful tool for achieving sustainable development*, UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA [UNECA], <http://www.uneca.org/publications/environmental-performance-review-powerful-tool-achieving-sustainable-development>.

<sup>34</sup> Brian Kahn, *Climate Change a 'Contributing Factor' in Syrian Conflict*, CLIMATE CENTRAL (Mar. 2, 2015), <http://www.climatecentral.org/news/climate-change-contributing-factor-syrian-conflict-18718>.

## II. BACKGROUND

Syria has become the focus of major international attention in recent years, largely due to political uprisings and the Syrian Civil War that resulted in the deaths of over two hundred and fifty thousand people, as well as the influx of hundreds of thousands of refugees into other countries around the world.<sup>35</sup> While many look to the Arab Spring in other countries as a main cause of the unrest and volatile political situation in Syria, the exacerbation of these tensions through the effects of droughts cannot be ignored.<sup>36</sup> Periods of drought have occurred for decades in Syria, without mass malnutrition and uprising.<sup>37</sup> The recent droughts and subsequent devastating effects are the result of global warming, a reliance of the poor on Syria's farming economy, and the nation's government failing to implement any major sustainable development practices or safeguards against the devastating impacts of global warming.<sup>38</sup>

### A. *Drought in Syria's Farming Regions From 2006 – 2010*

Syria has a semi-arid climate, making droughts a natural occurrence in the country's climate cycle.<sup>39</sup> Farmers, aware of dry periods, typically make allowances to account for short periods of drought.<sup>40</sup> Syria has long received little freshwater rainfall to meet its nation's needs, but not until recent years have these droughts created such serious issues.<sup>41</sup> The drought that began in 2006 in Syria has resulted in multiple seasons of crop failure, years of below normal rainfall levels, and as a result, led to the economic deterioration of the poorest regions.<sup>42</sup> The drought in Syria between 2006 and 2010 resulted in widespread starvation, malnutrition, and a rush of rural farmers into more populated urban areas.<sup>43</sup> The 2006-2010 drought has become the subject of much analysis given the political upheaval in the area,

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<sup>35</sup> *Syria: The story of the conflict*, BBC NEWS (Mar. 11, 2016), <http://www.bbc.com/news/world-middle-east-26116868>.

<sup>36</sup> See De Châtel, *supra* note 25.

<sup>37</sup> Vikram Mansharamani, *A major contributor to the Syrian conflict? Climate change*, PBS (Mar. 17, 2016), <http://www.pbs.org/newshour/making-sense/a-major-contributor-to-the-syrian-conflict-climate-change/>.

<sup>38</sup> Kahn, *supra* note 34.

<sup>39</sup> See De Châtel, *supra* note 25, at 522.

<sup>40</sup> *Id.*

<sup>41</sup> Peter H. Gleick, *Water, Drought, Climate Change, and Conflict in Syria*, AM. METEOROLOGICAL SOC'Y, 331, 332 (2014), <http://journals.ametsoc.org/doi/pdf/10.1175/WCAS-D-13-00059.1>.

<sup>42</sup> *Id.* at 333.

<sup>43</sup> *Id.*

the increase in terrorist groups recruiting in Syria, and the wealth provided by Syria's oil resources.<sup>44</sup>

The northeastern region of Syria provides the country with enormous wealth in the form of oil reserves.<sup>45</sup> Contrarily, while this region provides valuable resources for the country as a whole, its residents are some of the most impoverished individuals in Syria.<sup>46</sup> The nation's continued focus on ambitious development projects in the northeast has resulted in a depletion of groundwater reserves and the overuse of much of the region's land and water resources.<sup>47</sup> The poor in this area struggled for water and resources necessary to farm the land for years before the drought of 2006 struck.<sup>48</sup> While the effects of the drought from 2006-2010 may lead one to think they were much more extreme than other droughts, they were actually similar to that of droughts in the region spurred by climate change.<sup>49</sup>

In recent decades, global warming has caused droughts in the arid and semi-arid regions of the world to increase,<sup>50</sup> but not at a rate that could explain the massive malnutrition and humanitarian crisis that occurred in Syria.<sup>51</sup> Instead, the government's mismanagement of natural resources, focus on economic development, and disregard for the impoverished and susceptible populations led to a collapse of the fragile political balance in Syria. The impacts of drought in Syria, compounded with the tenuous political situation and extreme poverty in oil-rich areas that helped the rich of the region grow richer while the poor continued to suffer, created a "perfect storm" of social and economic pressure.<sup>52</sup>

Drought periods in Syria comprised roughly forty percent of the time period from 1960-2010, with the longest consecutive drought lasting for ten

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<sup>44</sup> Patrick Goodenough, *Kerry: Climate Change a Contributing Factor in Syrian Conflict*, CNS NEWS (Oct. 19, 2015), <http://www.cnsnews.com/news/article/patrick-goodenough/kerry-climate-change-contributing-factor-syrian-conflict>; see also Kahn, *supra* note 34.

<sup>45</sup> De Châtel, *supra* note 25, at 522.

<sup>46</sup> Oli Brown & Alec Crawford, GIVE PEACE (AND THE CLIMATE) A CHANCE, INT'L INST. FOR SUSTAINABLE DEV. 2 (Nov. 2009), [https://www.iisd.org/sites/default/files/publications/peace\\_and\\_climate\\_a\\_chance.pdf](https://www.iisd.org/sites/default/files/publications/peace_and_climate_a_chance.pdf).

<sup>47</sup> Hanna, *supra* note 5.

<sup>48</sup> Oli Brown & Alec Crawford, RISING TEMPERATURES, RISING TENSIONS, INT'L INST. FOR SUSTAINABLE DEV. 6 (2009), [https://www.iisd.org/pdf/2009/rising\\_temps\\_middle\\_east.pdf](https://www.iisd.org/pdf/2009/rising_temps_middle_east.pdf).

<sup>49</sup> Fischetti, *supra* note 6.

<sup>50</sup> Goodenough, *supra* note 44.

<sup>51</sup> *Id.* at 2-3.

<sup>52</sup> Gleick, *supra* note 41, at 334 (citing Abdullah bin Yehia, the Syrian Representative on the Food and Agriculture Organization of the United Nations).



years in the 1970s.<sup>53</sup> The droughts make up an important part of the cycle of dry and wet years common to the semi-arid Syrian climate.<sup>54</sup> Some believe that the impacts of global warming are the cause of the region's increased droughts, crop failure, and subsequent devastation.<sup>55</sup> While studies have found a link between the increase in droughts in the Mediterranean region and global warming,<sup>56</sup> the droughts have not had the same devastating effect on other countries as has been felt in Syria.<sup>57</sup> This means that Syria's drought from 2006-2010 was not devastating simply due to increased length, frequency, or severity that could be traced to global warming, but instead is further evidence of the mismanagement of resources and lack of any meaningful sustainable development programs within Syria.

*B. Urban Overcrowding and Political Unrest: The Syrian Civil War*

With the effects of drought felt in the most impoverished parts of Syria, many poor farmers left their now barren farmlands and pushed into major cities in hope of finding new sources of income and ways to support their starving families. With the onset of the 2006 drought, over one million Syrians in the lesser-populated eastern region of the country<sup>58</sup> felt the impact of the drought and experienced agricultural failure by 2009.<sup>59</sup> By 2011, that number increased to between two and three million.<sup>60</sup> As of 2010, eight hundred thousand Syrians had lost their livelihood and ability to provide for their families.<sup>61</sup> Nearly half of the country's population—twenty-two million people before the war—have been displaced since the start of the war.<sup>62</sup> The severe malnutrition and loss of food sources forced many

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<sup>53</sup> Brian Kahn, *Syria's Drought Has Likely Been Its Worst in 900 Years*, CLIMATE CENTRAL (Mar. 1, 2016), <http://www.climatecentral.org/news/syrias-drought-worst-900-years-20087>.

<sup>54</sup> Kahn, *supra* note 34.

<sup>55</sup> Environment, Conflict and Cooperation Platform (hereinafter "ECC Platform"), *Syrian Civil War: the Role of Climate Change*, ECC PLATFORM LIBRARY, <https://library.ecc-platform.org/conflicts/syrian-civil-war-role-climate-change>.

<sup>56</sup> NOAA Study: *Human-Caused Climate Change a Major Factor in More Frequent Mediterranean Droughts*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (Oct. 27, 2011), [http://www.noaaneews.noaa.gov/stories2011/20111027\\_drought.html](http://www.noaaneews.noaa.gov/stories2011/20111027_drought.html).

<sup>57</sup> See *id.*; see also Brown & Crawford, *supra* note 48.

<sup>58</sup> Middle East: Syria, CENTRAL INTELLIGENCE AGENCY: WORLD FACTBOOK, <https://www.cia.gov/library/publications/the-world-factbook/geos/sy.html> (stating that more than half of Syria's population resides along the Mediterranean coastal plain and Euphrates Valley in the western part of the country).

<sup>59</sup> Gleick, *supra* note 41, at 334.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

<sup>62</sup> Adrian Edwards, *Needs soar as number of Syrian refugees tops 3 million*, UNHCR (Aug. 29, 2014), <http://www.unhcr.org/53ff76c99.html>.

agricultural workers and family farmers to move from their long time homes in search of a living.<sup>63</sup> More than one and a half million people moved out of the rural regions into the major cities and camps on the outskirts.<sup>64</sup> The push into cities put a greater stress on the poor within Syria's major cities, as well as on the poor who were forced to relocate to urban areas.<sup>65</sup>

Syria's government provided little support for the poor suffering throughout the country.<sup>66</sup> With citizens starving and frustrated, the government made little effort to help its own citizens; instead, government officials focused on retaining their political power.<sup>67</sup> This choice, and the effort to eradicate terrorist groups within Syria instead of focusing on the struggles of the Syrian people, led to a political upheaval and demand for change throughout the region.<sup>68</sup>

In 2011, with cities overcrowded and citizens starving and in search of work, political tension reached its peak.<sup>69</sup> Nationwide pro-democracy protests erupted against President Bashar al-Assad.<sup>70</sup> The President's forces opened fire on protestors and killed more than two hundred people in a subsequent protest in Dar'a.<sup>71</sup> Assad's cabinet passed a law requiring citizens to gain government permission before they could participate in protests.<sup>72</sup> The government attempted to crush the dissent, but by July hundreds of thousands of Syrians were protesting and demanding the President's resignation.<sup>73</sup> Armed guards and tanks suppressed protests in Dar'a, Baniyas, Homs, and Damascus, with the government cutting off communications, water, and electricity.<sup>74</sup>

The conflict has now expanded beyond just rebels fighting against the government regime and the forces supporting President Assad.<sup>75</sup> Several

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<sup>63</sup> BBC NEWS, *supra* note 35.

<sup>64</sup> Edwards, *supra* note 62.

<sup>65</sup> *Id.*

<sup>66</sup> Fred Barbash, *U.N.: Nearly half of Syria's population uprooted by civil war*, WASHINGTON POST (Aug. 29, 2014), [https://www.washingtonpost.com/news/morning-mix/wp/2014/08/29/u-n-nearly-half-of-syrias-population-uprooted-by-civil-war/?utm\\_term=.6d7dbde7d7c0](https://www.washingtonpost.com/news/morning-mix/wp/2014/08/29/u-n-nearly-half-of-syrias-population-uprooted-by-civil-war/?utm_term=.6d7dbde7d7c0).

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*; see also Edwards, *supra* note 62.

<sup>70</sup> BBC NEWS, *supra* note 35.

<sup>71</sup> *Syrian Civil War*, ENCYLOPAEDIA BRITANNICA 1 (Dec. 8, 2015) <http://www.britannica.com/event/Syrian-Civil-War>.

<sup>72</sup> *Id.*

<sup>73</sup> BBC NEWS, *supra* note 35.

<sup>74</sup> ENCYCLOPAEDIA BRITANNICA, *supra* note 71, at 1.

<sup>75</sup> BBC NEWS, *supra* note 35.

religious sects, as well as the involvement of the Russian government, has exaggerated the problems and resulted in a rising death toll and exodus of Syrians fleeing the conflict.<sup>76</sup> Outside of the political influences, jihadist influences from the Islamic State have exacerbated the violence and made other nations fearful of allowing Syrian immigrants into their jurisdiction.<sup>77</sup> The group has capitalized on the catastrophes and political unrest in Syria to recruit those suffering in the middle of the conflict between the rebels and President Assad's forces.<sup>78</sup> The Islamic State has created new internal fighting, as they have attacked both rebel groups and the Syrian government soldiers.<sup>79</sup> The Syrian government has cited the rise of rebel groups and activity from the Islamic State jihadists as the reason they have ignored sustainable development goals. However, the problems created by lack of conservation reached a tipping point before these groups gained ground in Syria.<sup>80</sup> While contributing factors leading to the Syrian Civil War are numerous, this comment is limited to an analysis of the environmental policies (or lack thereof) as a contributing factor to the war.<sup>81</sup>

### III. THE SUSTAINABLE DEVELOPMENT GOALS SYRIA HAS FAILED TO ACHIEVE

Despite assertions from Syrian political leaders that Syria has successfully implemented procedures, and achieved an environmentally sound system, the country has fallen behind on a number of international agreements and many of its own environmental promises.<sup>82</sup> This section will begin by analyzing how Syria sought to implement goals for sustainable development and green economies. It will then look to where these goals failed and the impact of the failure to implement sustainable development goals on the Syrian environment, economy, and political climate.

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<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> ENCYCLOPAEDIA BRITANNICA, *supra* note 71, at 2.

<sup>79</sup> BBC NEWS, *supra* note 35.

<sup>80</sup> SYRIAN OBSERVER, *supra* note 21.

<sup>81</sup> For broader analysis of the contributing factors to the Syrian Civil War, please see *Syria's civil war explained from the beginning*, AL JAZEERA (last updated Apr. 24, 2017), <http://www.aljazeera.com/news/2016/05/syria-civil-war-explained-160505084119966.html>; see also, *Why is there a war in Syria?*, BBC NEWS (Apr. 7, 2017), <http://www.bbc.com/news/world-middle-east-35806229>.

<sup>82</sup> Rasha Raslan & Haifa Said, *Environment Minister: Syria Committed to Obligations Under Int'l Conventions For Ozone Layer Protection*, SYRIAN ARAB NEWS AGENCY [SANA] (Sept. 16, 2014), <http://sana.sy/en/?p=13260>.

### A. *Syria's Plans for Sustainable Development*

Syria has signed on to numerous international conventions prescribing sustainable development practices, and has enacted its own laws throughout the country to try and implement sustainable development practices.<sup>83</sup> Syria's constitution, adopted in 2012 in response to uprisings, included provisions focused on these issues. Article 13 states that the national economy and economic policies of the state "shall aim at meeting basic needs of individuals and society through the achievement of economic growth and social justice in order to reach comprehensive, balanced and sustainable development".<sup>84</sup> It further states that "[p]rotection of the environment shall be the responsibility of the state and society and it shall be the duty of every citizen."<sup>85</sup> By introducing principles of sustainable development and a duty of citizens and the government to protect the environment, Syria set up a system to establish a green economy.

In addition to implementing sustainable development and conservation goals in the country's 2012 constitution, Syria has signed on to a number of international treaties and conventions aimed at promoting these goals. In 1996, Syria acted as a signatory to the United Nations Framework Convention on Climate Change ("UNFCCC").<sup>86</sup> The UNFCCC emphasizes the need to cope, adapt, and reduce the effects of climate change worldwide.<sup>87</sup> As a part of this Convention, Syria negotiated with other states and parties on a number of issues, including mitigation, technology transfer, and coordination of positions with developing countries.<sup>88</sup> Syria also signed the Convention on Biological Diversity ("UNCBD") in 1993.<sup>89</sup> The UNCBD focuses on international and national efforts by countries to halt the loss of biodiversity in all ecosystems as a result of climate change.<sup>90</sup> Finally, Syria ratified the United Nations Convention to Combat Desertification ("UNCCD") in 1997.<sup>91</sup> Syria has remained an active participant in

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<sup>83</sup> Daya, *supra* note 13, at 2–4.

<sup>84</sup> DUSTUR JUMHURIYA AL 'ARABIYYA AS-SURIYYA [CONSTITUTION] Feb. 24, 2012, art. 13(2).

<sup>85</sup> *Id.* at art. 27.

<sup>86</sup> See United Nations Framework Convention on Climate Change, *opened for signature* June 4, 1992, 1771 U.N.T.S. 107.

<sup>87</sup> Daya, *supra* note 13, at 17.

<sup>88</sup> *Id.*

<sup>89</sup> See United Nations Convention on Biological Diversity, *opened for signature* June 5, 1992, 1760 U.N.T.S. 79; see also *List of Parties*, CONVENTION ON BIOLOGICAL DIVERSITY, <https://www.cbd.int/information/parties.shtml> (last visited April 13, 2017).

<sup>90</sup> Daya, *supra* note 13, at 18.

<sup>91</sup> See United Nations Convention to Combat Desertification, *opened for signature* Oct. 14, 1994, 1954 U.N.T.S. 3.

UNCCD.<sup>92</sup> Given the arid and semi-arid climate of Syria, the nation has worked to raise public awareness of desertification issues, as well as sensitize national leaders to these issues and create development policies addressing desertification and its impacts on Syria.<sup>93</sup>

Lastly, Syria has worked to establish sustainable development plans in each of the country's major economic sectors.<sup>94</sup> Within the energy, transportation, agriculture, water, industry, and tourism sectors, high ranking government officials and industry executives have worked together to create plans for improving sustainable development.<sup>95</sup> Each of these industry sectors play a key role in helping to further sustainable development goals. Without a concentrated effort on involving industry officials and recreating industry practices, the nation's environmental efforts would surely stall. As such, the Syrian government has worked with and heard from numerous executives and industry leaders to implement technological advancements, cut costs, and create incentives for sustainable industry practices.

Furthermore, the government has identified key sectors that are marked as cornerstones of the sustainable development movement in Syria.<sup>96</sup> These cornerstone sectors include the health sector and the housing sector (which includes potable and sewage water, as well as solid waste management).<sup>97</sup> The Syrian government has primarily focused its investment on the health sector. The creation of the Directorate of Environmental and Chronic Diseases demonstrated an institutional shift toward the study and consideration of the environment and the impacts of sustainable development on public health.<sup>98</sup> Similarly, by focusing on water resources and solid waste management, Syria established plans to provide utilities and infrastructure to urban communities.<sup>99</sup> By addressing these issues, Syria took important steps towards sustainable development. However, by only looking to the issues with immediate impacts on the nation and its citizens, the government did not set up a system to develop a long-term green economy.

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<sup>92</sup> Daya, *supra* note 13, at 19.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.* at 20.

<sup>95</sup> *Id.* at 21–33.

<sup>96</sup> *Id.* at 33.

<sup>97</sup> *Id.* at 34–40.

<sup>98</sup> *Id.* at 36.

<sup>99</sup> *Id.* at 37.

### B. *Why Syria's Sustainable Development Has Failed*

While Syria has attempted to implement sustainable development, the country has been largely unsuccessful. The failure to successfully adopt sustainable development results from a number of factors. Some believe the drought, food shortages, and impending political upheaval stopped Syria from being able to properly focus on and achieve its sustainable development goals, which in turn contributed greatly to the Syrian Civil War.<sup>100</sup> However, simply blaming the civil war on climate change and its effects in Syria would take too simplistic of a view on the numerous factors that contribute to political upheaval.<sup>101</sup> It is more likely that a combination of factors caused Syria's failure in establishing a green economy or any success, likely the same factors that affect almost all developing nations.<sup>102</sup>

Failure to educate the nation and its people properly, as well as a failure by the United Nations and developed nations to transfer technology and other resources to developing nations, creates a struggle for those nations to find success in sustainable development.<sup>103</sup> Without proper education and infrastructure, developing nations who are often hit the hardest by the effects of climate change have little ability to prepare for and set up the necessary steps for sustainable development practices.<sup>104</sup> The United Nations, along with numerous international non-profit organizations, has noted the important role education plays in securing a successful sustainable development program.<sup>105</sup> However, most of the goals and requirements put into place fall short on education requirements for both younger generations and those already in positions to effect change.<sup>106</sup> Despite the long history of conflict over water resources in the region, this education must concern both the mechanisms to counteract problems in developing nations, but also should focus on what causes many of the issues these nations face today.

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<sup>100</sup> Fountain, *supra* note 10.

<sup>101</sup> Megan Perry, *How Climate Change and Failed Agricultural Policies Have Contributed to Conflict in Syria*, SUSTAINABLE FOOD TRUST (May 10, 2016), <http://sustainablefoodtrust.org/articles/climate-change-agriculture-syria-conflict/>.

<sup>102</sup> See Kholoud Mansour, *Syria Showcases the Failure to Engage Locals in Development*, CHATHAM HOUSE: THE ROYAL INST. OF INT'L AFF. (Aug. 20, 2015), <https://www.chathamhouse.org/expert/comment/syria-showcases-failure-engage-locals-development#>.

<sup>103</sup> *Id.*

<sup>104</sup> Vikas Pota, *Sustainable development goals are failing because we don't care enough about education*, THE TELEGRAPH (Sept. 6, 2016), <http://www.telegraph.co.uk/education/2016/09/05/sustainable-development-goals-are-failing-because-we-dont-care-e/>.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

A scientific study by the National Oceanic and Atmospheric Administration (“NOAA”) in 2011 found a link between the major drought in Syria between 2006 and 2010 and the effects of climate change.<sup>107</sup> While this link is concerning, the continual release of greenhouse gases presents another issue.<sup>108</sup> The civil war in Syria has halted all sustainable development efforts, and as the effects of climate change are felt more and more, the results could increasingly devastate Syria and similar areas.<sup>109</sup> In the last twenty years, ten of the driest twelve droughts have occurred in regions surrounding the Mediterranean Sea, with one being the 2006-2010 drought in Syria.<sup>110</sup> Climate change from greenhouse gases contributes to roughly fifty percent of the increased dryness in this region over the last century.<sup>111</sup> These problems have only been exacerbated in Syria by poor governance and ineffective implementation of sustainable development and environmental goals from the government.<sup>112</sup>

Scientists at NOAA have determined that the rate of dryness over recent years in Syria and other nations bordering the Mediterranean Sea is too extreme to simply be the result of natural variations in the regime or climate patterns.<sup>113</sup> Dr. Martin Hoerling, lead scientist on the study, noted “[t]his is not encouraging news for a region that already experiences water stress, because it implies natural variability alone is unlikely to return the region’s climate to normal.”<sup>114</sup> For the Mediterranean region, this means that the worst effects of climate change may still be yet to come. Climate change models for Syria predict that without a decrease in the number of greenhouse gas emissions, the crop yields may fall between twenty-nine and fifty-seven percent from 2010 to 2050.<sup>115</sup> Though the effects of climate change have been particularly harsh upon Syria, it is a global problem. Without concerted effort from the Mediterranean region and help from numerous international organizations, these problems will worsen.<sup>116</sup>

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<sup>107</sup> Femia & Werrell, *supra* note 23.

<sup>108</sup> *Id.*

<sup>109</sup> NAT’L OCEANIC & ATMOSPHERIC INST., *supra* note 56.

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

<sup>112</sup> *See* Mansour, *supra* note 102.

<sup>113</sup> NAT’L OCEANIC & ATMOSPHERIC INST., *supra* note 56.

<sup>114</sup> *Id.*

<sup>115</sup> Clemens Breisinger et. al., *Global and Local Economic Impacts of Climate Change in Syria and Options for Adaptation* 1 (Int’l Food Policy Research Inst., Discussion Paper 01091, 2011), <http://cdm15738.contentdm.oclc.org/utis/getfile/collection/p15738coll2/id/124918/filename/124919.pdf>.

<sup>116</sup> *See* Mansour, *supra* note 102.

### C. Looking Forward

The primary concern for Syria and the global community moving forward is to regain political stability and end the country's devastating civil war. In looking to Syria's future in terms of sustainable development, the nation and its leadership—whatever that may be in coming years—must first begin with counteracting the most immediate effects of climate change. This includes issues of food security, economic stability, and proper management of water and other natural resources.<sup>117</sup> Access to food and proper resources to bolster the largely agriculture-based economy of Syria is a necessity. With a lower food security index than many similar nations, the Syrian case study emphasizes the cross section of global and local sustainable development goals.<sup>118</sup> The effects of the drought in Syria from 2006-2010 show that the impact of climate variability and change stretch far beyond just the rural poor and agriculturally-dependent members of world populations.<sup>119</sup> Without substantial changes to the effort to halt climate change and stop greenhouse gas emissions, Syria and nations in similar positions can expect further problems with food security, increase in conflict over water and natural resources, and higher food prices nationally and internationally.<sup>120</sup>

Since the beginning of the Syrian Civil War, government officials have halted sustainable development practices, citing terrorism and the rebellion as the main obstacles to the country's ability to implement these practices.<sup>121</sup> While the Syrian Representative to the United Nation, Bashar al-Jaafari, has stated that the UN must "consider combating terrorism as a priority to achieve sustainable development,"<sup>122</sup> this should not be the sole focus of Syria's efforts. Pushing the analysis that sustainable development efforts must take a backseat to support of the Assad regime in crushing all rebellion reestablishes the long running system of mismanagement of resources that helped contribute to the devastating drought of the early twenty-first century.<sup>123</sup> While undoubtedly Syria must end its civil war before it can dive back into a fully supported effort towards a green economy, an end to terrorism should not be viewed as accomplishing the

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<sup>117</sup> Breisinger et. al., *supra* note 115, at 11.

<sup>118</sup> *Id.* at 12.

<sup>119</sup> *Id.* at 23.

<sup>120</sup> *Id.* at 31.

<sup>121</sup> SYRIAN OBSERVER, *supra* note 21.

<sup>122</sup> *Id.*

<sup>123</sup> Femia & Werrell, *supra* note 23.



nation's sustainable development goals.<sup>124</sup> The region around the Mediterranean Sea has long experienced conflict over water and natural resources, as well as religious and economic factors.<sup>125</sup> Regardless of the factors leading to the 2006-2010 drought years and the civil unrest to follow, without serious action Syria is likely to face future years of serious drought and water management problems.<sup>126</sup> The reduced flow of surface water and increased temperature, along with drought patterns common to Syria and the Mediterranean region, creates an even deeper need for the establishment of green economic and sustainable development measures.<sup>127</sup> Though prior failures in sustainable development have contributed to a dangerous situation of political unrest and civil tragedy, Syria must learn from its past mistakes moving forward or be doomed to repeat its errors and face greater periods of drought, food insecurity, and loss of natural resources.<sup>128</sup>

#### IV. MOROCCO'S SUSTAINABLE DEVELOPMENT SUCCESS

Morocco, like Syria, is a developing nation whose gross domestic product has increased in recent years, and with it environmental degradation has also increased.<sup>129</sup> Morocco has few natural resources and is very susceptible to the effects of climate change given its combination of both marine and Saharan climate influences.<sup>130</sup> Morocco has experienced similar political turmoil throughout the twentieth century and has been susceptible to the political pressures of the Arab Spring.<sup>131</sup> However, unlike Syria, Morocco's government has adapted its policies and constitution to solve these issues,<sup>132</sup> for the importance of this comparison they have made numerous advances towards sustainable development implementation.<sup>133</sup>

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<sup>124</sup> SYRIAN OBSERVER, *supra* note 21.

<sup>125</sup> Gleick, *supra* note 41, at 332–34.

<sup>126</sup> *Id.*

<sup>127</sup> See NAT'L OCEANIC & ATMOSPHERIC INST., *supra* note 56; Gleick, *supra* note 41, at 332–34.

<sup>128</sup> Fountain, *supra* note 10.

<sup>129</sup> Several developing nations have been singled out by UNEP for their success in implementing aspects of green economies. I choose Morocco for comparison due to similarities in climate, regional issues, and political climate throughout the twentieth century. For information regarding success of other developing countries, please see UNEP's success stories for China, India, Nepal, Tunisia, Uganda, Kenya, Ecuador, and Brazil. Pavan Sukhdev et. al., *Green Economy Developing Countries Success Stories*, UNEP (2010), [https://web.unep.org/greeneconomy/sites/unep.org/greeneconomy/files/greeneconomy\\_success\\_stories.pdf](https://web.unep.org/greeneconomy/sites/unep.org/greeneconomy/files/greeneconomy_success_stories.pdf).

<sup>130</sup> Tarradell, *supra* note 29, at 3.

<sup>131</sup> Bozonnet, *supra* note 28.

<sup>132</sup> *Id.*

<sup>133</sup> *Moroccan Challenges and Opportunities: Environmental and Sustainable Development*, LEGACY INT'L (July 14, 2016), <http://www.legacyintl.org/highlights/moroccan-challenges-and-opportunities-environment-and-sustainable-development/>.

Morocco<sup>134</sup> and Syria are both partially bordered by water, but have a limited amount of arable land.<sup>135</sup> Both nations have a version of a Mediterranean climate with wet and dry seasons. Morocco has also experienced its longest and most sustained drought periods in recent years.<sup>136</sup> Morocco's recent droughts and booming economic development programs throughout the 1990s and early 2000s have led to an acceleration of environmental degradation and a depletion of natural resources.<sup>137</sup> These development programs, like the development in Syria, have caused enormous health and environmental issues for the Moroccan government.<sup>138</sup> Environmental health problems, excessive pollution, deforestation, and soil erosion have led the country to study and implement new sustainable development practices to counteract the environmental problems.<sup>139</sup> These circumstances in Morocco have led to similar problems of degradation, crop failure, and loss of natural resources.<sup>140</sup> Unlike Syria, Morocco has approached sustainable development not just in theory, but through the actual creation of documents related to the setting and implementation of sustainable development goals and initiatives. The Moroccan government has approached sustainable development through a head-on environmental effort, supported in large part by two major conservation documents: SNPEDD and PANE.

The first of these documents was developed by Morocco in 1995 to set up a future framework for how the country would approach conservation and environmental issues in a way to prevent future health issues and improve the problems the country already faced.<sup>141</sup> The National Strategy for the Protection of the Environment and Sustainable Development ("SNPEDD") forms a major strategic approach to fighting environmental issues.<sup>142</sup> SNPEDD focuses on strengthening environmental efforts in areas of economic development, namely the use of natural resources in relation to

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<sup>134</sup> See O. Berkat & M. Tazi, *Country Pasture/Forage Resource Profiles: Morocco*, FOOD & AGRICULTURE ORGANIZATION OF THE UNITED NATIONS [FAO], <http://www.fao.org/ag/AGP/AGPC/doc/Counprof/Morocco/morocco.htm>.

<sup>135</sup> See Abdalla Masri, *Country Pasture/Forage Resource Profiles: Syrian Arab Republic*, FAO, <http://www.fao.org/ag/AGP/AGPC/doc/Counprof/syria/syria.htm>.

<sup>136</sup> Morocco suffered from extreme droughts between 1979 and 1984, and throughout most of the 1990s.

<sup>137</sup> See e.g., Tarradell, *supra* note 29, at 3; O. Berkat & M. Tazi, *supra* note 134.

<sup>138</sup> Tarradell, *supra* note 29, at 3.

<sup>139</sup> *Id.*

<sup>140</sup> O. Berkat & M. Tazi, *supra* note 134.

<sup>141</sup> *Id.*

<sup>142</sup> The abbreviation SNPEDD comes from the French acronym for the title of the document: "Stratégie nationale pour la protection de l'environnement et du développement durable."

sustainable management and pollution.<sup>143</sup> SNPEDD focuses on the use of cost-benefit analysis in order to compare quality objectives and necessary investment of a development policy with the medium and long-term profitability of environmental protection measures.<sup>144</sup> This document provides a general framework for action.<sup>145</sup> It outlines principles to strengthen the legal frameworks, policy goals, and institutional approaches. SNPEDD asks for the establishment of target levels for mid-term and long-term goals.<sup>146</sup>

As the result of the SNPEDD's policy analysis and goal setting, the Moroccan government increased its efforts to combat environmental issues and successfully implemented a second major initiative:<sup>147</sup> the National Plan of Action for the Environment ("PANE").<sup>148</sup> The PANE document was formulated as an action plan after SNPEDD.<sup>149</sup> PANE focuses on seven major areas: sustainable water management, sustainable management of soil resources, air pollution and renewables, sustainable management of the natural environment, prevention of natural disasters, improvement of urban environment, and management of communication strategies.<sup>150</sup> The overall goal of this document is not to create a stagnant set of rules for Morocco's sustainable development. Morocco's government created PANE with the intent that it would be revised and updated as new data is found and science on the environment and sustainable management practices evolve.<sup>151</sup> By creating documents that outline goals and action plans for major areas of environmental concern, Morocco sets up ways for the government to work towards these strategies now. However, the real strength of this document lies in the ability to adapt PANE's action plans over time with the influence of policy goals and scientific data.<sup>152</sup>

While adopting these innovative documents is a step in the right direction, Morocco has gone beyond simple adoption in creating a successful sustainable development program. The country has enacted national

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<sup>143</sup> Tarradell, *supra* note 29, at 3–4.

<sup>144</sup> *Id.* at 4.

<sup>145</sup> *Id.* at 5.

<sup>146</sup> *Id.* at 3.

<sup>147</sup> *Id.* at 4.

<sup>148</sup> The abbreviation PANE comes from the French acronym for the document title: "Plan national d'action pour l'environnement."

<sup>149</sup> Tarradell, *supra* note 29, at 4.

<sup>150</sup> *Id.* at 4–5.

<sup>151</sup> *Id.* at 7.

<sup>152</sup> *Id.*

programs fighting water waste and air pollution.<sup>153</sup> Morocco has also banned plastic bags, extended its urban tram networks in major cities, and launched an initiative to help continent's farmers adjust to climate change.<sup>154</sup> While Morocco has not achieved all of its goals, the adaptability of these documents have allows Morocco to set goals and change them or change the avenues to reach them. For example, Morocco has had issues in its generation of solid waste, so it has enlisted top scientists and politicians to come up with new solutions to the issue.<sup>155</sup> These groups are now working together to use technological advances to map dumpsites and cleanups.<sup>156</sup> Looking forward, Morocco has invested in a future for its green economy through environmental education curriculum in primary, secondary, and high school courses.<sup>157</sup> Moreover, the nation has committed to increasing its share of renewable electricity generation to fifty-two percent by 2030.<sup>158</sup> This goal setting is a specific aspect of the SNPEDD document.<sup>159</sup> Moving from the goal setting of SNPEDD, the action plan of the PANE document helps to create practical means for achieving these objectives. The government has begun enormous infrastructure projects to increase its solar, wind, and hydraulic power capacity to meet this goal.<sup>160</sup>

The fundamental differences in the success of Morocco's sustainable development programs and the failure of Syria's may lie in attitudes towards the environment and what these goals can do for the nations. Morocco's ruler, King Mohammed VI, has time and time again stated the importance of sustainable development for Morocco.<sup>161</sup> In constitutional reforms, King Mohammed and the Moroccan government have established a right to sustainable development.<sup>162</sup> The nation has changed its Constitution to include a provision that sustainable development is a fundamental right for every citizen.<sup>163</sup> Morocco has experienced issues with social inequality and poverty similar to those leading to political uprising in Syria. However, the

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<sup>153</sup> *Moroccan Challenges and Opportunities*, *supra* note 133.

<sup>154</sup> Celeste Hicks, *Morocco lights the way for Africa on renewable energy*, THE GUARDIAN (Nov. 17, 2016), <https://www.theguardian.com/global-development/2016/nov/17/cop22-host-morocco-lights-way-africa-renewable-energy-2020>.

<sup>155</sup> *Moroccan Challenges and Opportunities*, *supra* note 133.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> Hicks, *supra* note 154.

<sup>159</sup> Tarradell, *supra* note 29, at 3–4.

<sup>160</sup> *Id.*

<sup>161</sup> King Mohammed VI, King of Morocco, Speech to The Nation (Mar. 9, 2011) (transcript available at <http://www.voltairenet.org/article168894.html>).

<sup>162</sup> UNEP, *supra* note 32, at 1.

<sup>163</sup> *Moroccan Challenges and Opportunities*, *supra* note 133.

government of Morocco has chosen to effect change in long-term beneficial ways. The goals of Morocco's green economy and sustainable development programs are to fight poverty and social inequality with long-term conservation and environmental development goals.<sup>164</sup> Morocco changed its Economic and Social Council to an Economic, Social, and Environmental Council, and it has worked with the United Nations Environment Programme (UNEP) to enact low-carbon development projects.<sup>165</sup> The programs created by the Economic, Social, and Environmental Council are projected to create eighty-four thousand jobs in green initiatives over the next fifteen years that will simultaneously promote development, cut down on resource waste, reduce greenhouse gases, and improve alternative energy usage throughout Morocco.<sup>166</sup>

## V. RECOMMENDATIONS TO SYRIA AND OTHER NATIONS

Morocco provides a strong example of how developing nations may successfully implement sustainable development practices in a way that Syria has failed to do. However, Syria and other nations can still create lasting change to conserve their resources and simultaneously help their citizens. Through establishing goals, documents, and standards advancing a green economy, developing nations can create jobs in sustainable industries.<sup>167</sup> By beginning with an attitude focused on not just improving the nation's economy, but doing so with environmental protection and conservation in mind, Syria and other developing nations can improve job opportunities for citizens and fight the effects of climate change.<sup>168</sup> UNEP defines a green economy as one that improves human well-being and social justice, while significantly reducing environmental risks and depletion of natural resources.<sup>169</sup> Furthermore, the United Nations characterizes green economies in developing nations by:

[S]ubstantially increased investments in economic sectors that build on and enhance the earth's natural capital or reduce ecological scarcities and environmental risks. These sectors include renewable energy, low-carbon transport, energy-

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<sup>164</sup> UNEP, *supra* note 32, at 1.

<sup>165</sup> *Id.*

<sup>166</sup> *See id.* at 2.

<sup>167</sup> *See generally* UNEP Success Stories, *supra* note 31.

<sup>168</sup> *World Economic and Social Survey 2013: Sustainable Development Challenges* 64–65 (2013), UNITED NATIONS DEPARTMENT OF ECONOMIC & SOCIAL AFFAIRS [UNDESA] (2013), <https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf>.

<sup>169</sup> UNEP Success Stories, *supra* note 31, at 5.

efficient buildings, clean technologies, improved waste management, improved freshwater provision, sustainable agriculture, forestry, and fisheries.<sup>170</sup>

The United Nations has established standards and strategies for sustainable development since the early 1990s.<sup>171</sup> However, meeting the standards set by the UN Conferences on Environment and Development is much easier said than done. Morocco created documents to first outline principles to strengthen the legal frameworks and institutional approaches, and second to create an action plan with flexible goals and rules that may be updated as new science and technology about environmental management practices are discovered.<sup>172</sup> The flexibility of these documents provides a much more realistic approach to dealing with sustainable development for countries with changing political, social, and economic issues.<sup>173</sup> UNEP's Green Economy Initiative encourages similar, but far more vague initiatives for nations looking to implement a green economy.<sup>174</sup> Namely, it encourages nations to produce a report and research materials analyzing economic sustainability and green investment, to provide advisory services on how to move towards a green economy, and to engage research, non-government organizations, and UN partners to implement the Green Economy Initiative.<sup>175</sup>

Nations should work with the UNEP's Green Economy initiative, as well as other United Nations supported programs, to improve their own sustainable development practices with international support. Morocco and other nations dedicated to the improvement of their environmental conditions have participated in Environmental Performance Reviews from the United Nations Economic Commission for Africa.<sup>176</sup> Performance reviews analyze the country's environmental management of resources, sustainable development practices, and international commitments.<sup>177</sup> Countries, through the UN's five regional commissions established by the Economic and Social Council of the UN in 1958, can propose organization of such groups for their region to create programs for accountability and aid

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<sup>170</sup> *Id.*

<sup>171</sup> UNDESA, *supra* note 168, at 7.

<sup>172</sup> *See generally* Tarradell, *supra* note 29.

<sup>173</sup> *Id.*

<sup>174</sup> UNEP Success Stories, *supra* note 31, at 5.

<sup>175</sup> *Id.*

<sup>176</sup> UNECA, *supra* note 33, at 3.

<sup>177</sup> *Id.* at 4.

in enforcing nations' goals.<sup>178</sup> Morocco, as the first African country to undergo an environmental performance review, believes this is a strategic tool to further its efforts and create a program of accountability in its methods.<sup>179</sup> Developing nations should submit themselves to environmental performance reviews to establish the areas where they struggle and find the best methods to adopt meaningful plans and documents based on their nation's individual needs.

By creating specified and flexible documents with a country's economic, climate, and particular sustainable management and job growth goals,<sup>180</sup> the government of a developing nation can better find methods of sustainable development that works for it.<sup>181</sup> Morocco was able to introduce a program to create over eighty thousand jobs in clean energy and sustainable management over fifteen years.<sup>182</sup> China had used renewable energy to decrease energy consumption by twenty percent in five years and employ one and a half million people.<sup>183</sup> In Brazil, urban expansion has been addressed with sustainable urban planning to increase use of public transportation and decrease fuel use.<sup>184</sup> Through responsible urban planning focused on the needs of each city and its populations, Brazil has created fifty thousand jobs directly towards industrial purposes in the city of Curitiba and one hundred and fifty thousand jobs indirectly to serve Curitiba's sustainable programs.<sup>185</sup> The success stories of nations facing enormous impacts from climate change and population growth provide strong support for the possibility of successful green economies around the world.<sup>186</sup> Using country-specific plans for job growth focused on simultaneously improving environmental impacts allows green economies to improve the issues faced by some of the most susceptible nations in the world.<sup>187</sup>

While it is clear that, so long as Syria remains enthralled in civil war, it cannot begin to work towards a green economy or sustainable development success, the nation can put these recommendations in place once the war has ended and rebuilding begins. Syria and other developing

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<sup>178</sup> *Overview of United Nations Economic Commission for Africa*, UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA, <http://www.uneca.org/pages/overview> (last visited April 13, 2017).

<sup>179</sup> UNECA, *supra* note 33, at 8.

<sup>180</sup> UNEP, *supra* note 32.

<sup>181</sup> King Mohammed VI, *supra* note 161.

<sup>182</sup> *See* UNEP, *supra* note 32, at 2.

<sup>183</sup> UNEP Success Stories, *supra* note 31, at 8–9.

<sup>184</sup> *Id.* at 14.

<sup>185</sup> *Id.* at 15.

<sup>186</sup> *See generally* UNEP Success Stories, *supra* note 31.

<sup>187</sup> *Id.*

nations must undertake several methods to successfully create and maintain practices for environmental protection and sustainable development.<sup>188</sup> These nations should first obtain insight from the research and studies done related to sustainable development and environmental degradation problems within their own countries.<sup>189</sup> Next, these nations should undergo a study of their current practices, such as an environmental performance review, to see what practices are working and what practices are hurting nations' goals.<sup>190</sup> A review of the countries' practices can serve as an educational effort moving forward.<sup>191</sup> After conducting studies and obtaining research, the nation should then create specific yet flexible documents that create a mechanism for implementing laws and programs to advance the nation's goals, while leaving room for changes to be made with new and additional research.<sup>192</sup> By learning from Morocco and other nations who have successfully faced modern environmental problems, developing nations can avoid the devastating effects Syria has faced from its failure to implement sustainable development practices effectively.

## VI. CONCLUSION

International efforts over the past several decades have pushed developed and developing countries to implement sustainable development practices and work towards creating green economies. Syria placed a large emphasis on sustainable development in legal reforms, including the 2012 Constitution and the various Conventions the nation signed and ratified throughout the 1990s and early 2000s.<sup>193</sup> Working with industry, other nations, and international organizations should have created a successful sustainable development regime.<sup>194</sup> However, Syria experienced record drought years and crop failure from 2006-2010.<sup>195</sup> These issues could be seen as the result of practical failures in implementing sustainable development practices, as Syria instead focused on legal reforms and public reports on climate change and greenhouse gas issues.<sup>196</sup> Another theory suggests that this drought was not preventable by sustainable development practices and the issues of overcrowding, political upheaval, and revolution

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<sup>188</sup> Tarradell, *supra* note 29.

<sup>189</sup> See UNEP Success Stories, *supra* note 31, at 5; UNDESA, *supra* note 168, at 7.

<sup>190</sup> UNECA, *supra* note 33, at 11.

<sup>191</sup> *Id.* at 10.

<sup>192</sup> UNEP, *supra* note 32.

<sup>193</sup> See Daya, *supra* note 13, at 2-4.

<sup>194</sup> *Id.*

<sup>195</sup> See De Chatel, *supra* note 25 at 521.

<sup>196</sup> Fountain, *supra* note 10.



that the drought set into motion prevented Syria from properly implementing sustainable development practices.<sup>197</sup> Whether Syria's lack of practical implementation of sustainable development is a symptom of political upheaval or a contributing factor to the upheaval is a matter for great debate. Other nations, such as Morocco, were able to overcome turmoil and similar drought and climate issues to implement a successful green economy and counteract many of the effects climate change could have on their countries.<sup>198</sup>

Despite the need Syria has felt to focus on ending rebellion and setting political discord aside before working towards sustainable development, it can be ascertained that without effective methods for reaching these goals, the country is at risk of further drought and disaster.<sup>199</sup> Syria and other developing nations must work to implement green practices into their public and private sectors before the effects are catastrophic.<sup>200</sup> This can only be done with the help of developed nations through technology transfer, shared adaptation and mitigation practices, and a global effort towards sustainable development.<sup>201</sup> Without practical ability to work towards these goals, developing nations will never be able to create a self-sustaining green economy, and many actions towards sustainable development will be nothing more than theoretical development.

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<sup>197</sup> See Mansour, *supra* note 102.

<sup>198</sup> Breisinger et. al., *supra* note 115, at 11.

<sup>199</sup> Mathieson, *supra* note 12.

<sup>200</sup> Femia & Werrell, *supra* note 23.

<sup>201</sup> See UNDESA, *supra* note 168 at 157.